



POTENTIAL FACTORS IN ENGAGING PHYSICAL ACTIVITY BEYOND PHYSICAL EDUCATION CLASS

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Abstract:

The study determined the potential factors in the engagement of students' physical activity beyond regular physical education class. Participants were 476 secondary students aged between 16 and 22 from randomly selected public and private schools of Metro Cebu, Philippines. Cross-sectional survey design was used to examine the potential factors of students in engaging physical activity such as autonomy support, behavioural regulations, and intentions outside school. The study highlighted on the presence of physical learning resources or equipment as perceived by students as strong support in the continuous engagement in physical activity. Moreover, internal regulation is more accepted reason for students in allowing themselves to participate in any physical activity. Further, the intention of the students in partaking in physical activity is a form of leisure time for them. It is concluded that students and/or individuals will participate or engage in physical activity if they perceived supported and motivated. Additionally, it is recommended to provide and/or maintain high quality P.E. learning resources and fortify the engagement of students in physical activity in school through physical education subject to ensure higher transcendence at home and in the community.

Keywords: intentions, physical education, autonomy support, behavioural regulations

1. Introduction

One of the thrusts of Physical Education in the Philippines is to provide avenue for the students to participate in physical activity. Though, it has been proven that participation in physical education activities provide benefits in physical attributes or fitness of the students both in skill – related and health – related aspects (Biddle, Sallis, & Cavill, 1998

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and Watts, Jones, Davis, & Green, 2005) but recognizing the limitation, there are cases wherein physical inactivity has been reported throughout several countries (Armstrong, 1989; Dishman, 1994; Wang and Chia, Quek, & Liu, 2006). Sallies and McKenzie (1991) elaborated that adult lifestyle is greatly influenced by positive experience in physical activity engagement which can promote wellness and public health while negative experiences triggered inactivity (Taylor, Blair, Cummings, Wun, and Malina, 1999). Thus, acquisition of physically active lifestyle mostly added to the adolescent stage is highly desired (Shephard and Trudeau, 2000 & Ntoumanis, 2005). Therefore, one of the indicators in the success of the students' engagement in physical activity lies on the experiences in physical education in the junior level as the adolescence stage blossoms in this period particularly in both psychological and physiological aspects. Aptly, physical education teachers, as professionally trained, are highly capable of providing the needed motivation in increasing students' participation in physical activity.

The Self-determination Theory (SDT) provides approaches in indicating the potential factors in understanding students' participation in physical education (Deci & Ryan, 1991, 2000). This theoretical approach has been successful in the perspective of education (Ryan & Deci, 2006; Vallerand, Fortier, & Guay, 1997) and in different sporting events (Hollembek & Amorose, 2005 and Thogersen-Ntoumani & Ntoumanis, 2006). However, the use of this approach is limited in the context of physical education (Hagger, Chatzisarantis, Culverhouse, & Biddle, 2003). The SDT approach explains the needs of an individual in different forms and satisfaction. People tend to be motivated if they find happiness or enjoyment out of their choices and capability to pursue the activity with the support of the people they cared for (Gagne, 2003). Additionally, the presence of accessible physical resources or equipment in engaging physical activity provides utmost support in physical activity endeavour (Garcia, Bojos, & Canillas, 2018).

In Philippine education, reforms through Republic Act 10533 otherwise known as Enhanced Basic Education-K12 and CMO 46 Policy – Standard to Enhance Quality Assurance in the Philippine Higher Education through an Outcomes-Based and Typology-Based continue to strive in setting the policies standards and guidelines inclusive of Physical Education, which is responsible in contributing to producing productive graduates that could perform well in the work place and even at any given (personal) time. Moreover, in reiteration, one of the physical education's ultimate goals is active engagement of regular physical activities for a lifetime. In establishing a strong foundation, physical education as a course and discipline is offered in schools in multi-grade levels as mandated by RA 5708, an Act of Providing for the Promotion and Financing of an Integrated Physical Education and Sports Development program for the schools in the Philippines and Article XIV, Section 19 of the Philippine Constitution which mandates that:

“The State shall promote physical education and encourage sports programs, league competitions, and amateur sports, including training for international competitions, to foster self-discipline, teamwork, and excellence for the development of a healthy and alert

citizenry. All educational institutions shall undertake regular sports activities throughout the country in cooperation with athletic clubs and other sectors."

The foregoing statements strongly prove that regular school physical activity participation of the students' ages 5 to 17 years old is evident through the structured physical education classes. Hence, the study purposely looked into the physical education class experience and the potential factors particularly on students' perceived autonomy support, behavioural regulation and physical activity intentions outside of school or beyond physical education class. Further, the study was conducted to draw and identify areas for improvement and strong points of the physical education classes and subsequently propose for an improved delivery of the program for curriculum enrichment in junior Physical Education classes in line with K to 12 Basic Education Reform.

2. Conceptual Framework

Perceived Autonomy Support, Behavioural Regulation in PE and Physical Activity Intentions Framework

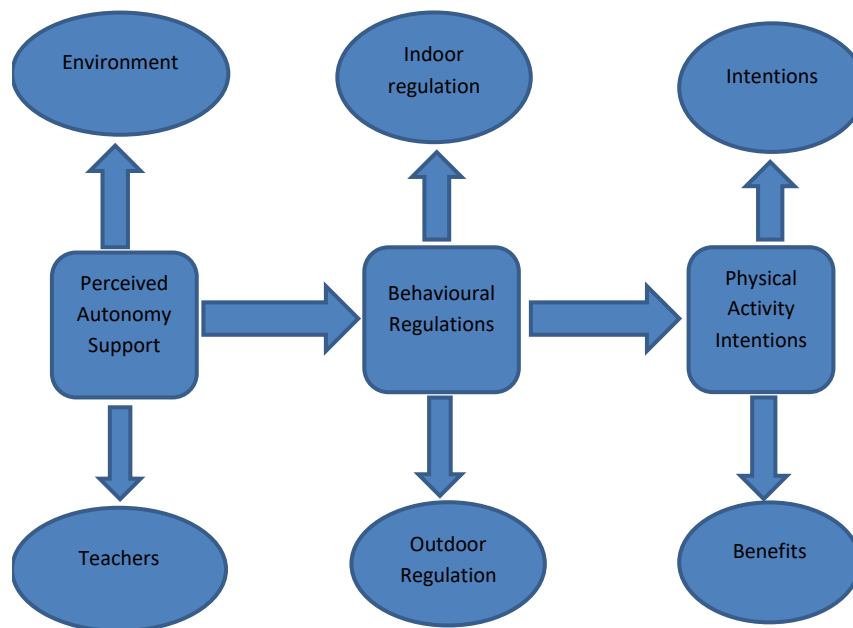


Figure 1: Potential Factors in Students Engagement in Physical Activity

The framework provides the different potential factors that can greatly influence the engagement of students in physical activity outside school or beyond physical education class. There are three identified factors such autonomy support (environment and teachers), behavioural regulations (indoor regulations and outdoor regulations) and physical activity intention (intentions and benefits) that can influence the student to decide to engage in physical activity beyond physical education class.

3. Materials and Methods

3.1 Design

This study used a cross-sectional survey design in gathering, analyzing, interpreting the data to answer the research questions. This is believed appropriate as it looked into the classroom experiences of the students particularly on physical activities and teachers' approaches in teaching physical education. The data collection was conducted in Metro Cebu specifically Lapu Lapu City, Minglanilla Cebu, and Cebu City, Philippines. The study locales were selected considering the proximity and accessibility and more importantly, these sufficiently provide the necessary data for the study. This could be beneficial to the study locale particularly to the schools for their improvement in the implementation and revision of their physical education curriculum.

3.2 Participants and Instruments

Responses were obtained from 476 Grades 9 and 10 students of public and private coeducational schools of Metro Cebu. Clustering of schools for North, South and Cebu City was done. One intact class was randomly selected for grades 9 and 10. Purposely focusing on these grade levels in order to draw implications for curriculum enrichment in junior Physical Education classes in line with K to 12 Basic Education Reform.

This study utilized a survey questionnaire as a tool in gathering the data. The survey questionnaire has four parts, part A answers on the personal choice of physical activity done outside school using the Sport Climate Questionnaire (Brickell, Chatzisarantis, & Pretty, 2006; Deci, 2001; Hagger et al., 2003), part B describes on the perceived autonomy support of students inside classroom physical education using Perceived Locus of Causality scale (Goudas, Biddle, & Fox, 1994), part C shows the students' varied behavioral regulations towards physical activities in their physical education class (Hagger et al., 2003) and part D is the physical activity intention of students to do physical activity outside school (during leisure time) (Ajzen and Madden, 1986). These instruments were modified and changed slightly to suit the context of physical education.

3.3 Ethical Considerations and Data Analysis

Ethical considerations were secured prior to the conduct of the study. Moreover, standard protocol was adhered to in gathering the data by transmitting letters to the Department of Education, Regional Director's Office and School Principals for endorsement and approval. With the presence of the PE teachers, the research questionnaires were administered and retrieved by the researchers on the same day of every school respondent, and then proceeded with data analysis and interpretation.

Descriptive Statistics using means and standard deviations of students' responses were consistent or homogeneous while larger values indicate more dispersion or variability of the responses. Also, frequency counts and percentages were used to describe the data on the different variables of the study. The result was further summarized and presented in frequency and percentage distribution tables.

4. Results and Discussions

This part presents, analyzes and interprets the results and discussions of the study.

Table 1: Perceived Autonomy Support in Physical Education

Perceived Autonomy Support	Type of School				Total	
	Private		Public			
	No.	%	No.	%	No.	%
Low	6	3.0	27	9.7	33	6.9
Moderate	66	33.3	131	47.1	197	41.4
High	126	63.6	120	43.2	246	51.7
Total	198	41.6	278	58.4	476	100.0

Table 1 presents the perceived autonomy support of the grades 9 and 10 PE students in public and private schools at various levels (low, moderate, high). Between private and public schools, majority of the PE students in private schools have high perceived autonomy support while majority of public-school students have moderate (47.1%) perceived autonomy support. This shows that more PE students in private schools have experienced stronger autonomy supported classroom environment compared to public school students due to the availability of learning resources. Studies conducted by Eime, R. M. et al. (2017), Higgerson, J. et al. (2018), Seu-jeng Huang, et al. (2016), proved that provision of sports and fitness facilities was positively associated with the increase in participation rate in the community. Thus, having sports facilities or adequate P.E. learning resources augment the motivation and/or intention of the students to engage in physical activity. Moreover, the difference between private and public schools' perceived autonomy support reflects the measure of impact (autonomy-supportive) by the PE teachers to the PE students.

Table 2: Behavioral Regulations of Students (N=476)

Behavioral Regulations	Mean	Std. Deviation	Lowest Value	Highest Value
External Regulation	3.068	1.3320	1.0	7.0
Interjected Regulation	3.432	1.3075	1.0	7.0
Identified Regulation	6.158	1.0195	1.0	7.0
Intrinsic Motivation	6.139	.9891	1.0	7.0
Relative Autonomy Index	8.868	4.4851	-8.7	18.0

Table 2 reveals the types of behavioral regulations by the students in the PE class. In a scale of 1 to 7 with 1 as not at all true and 7 as very strongly true, the highest mean score 6.158 is attributed to identified regulation which implies that the students' motivation towards physical activity in the class is done because they find it beneficial and important. Thus, choosing to perform freely. Intrinsic motivation having a mean score of 6.139 tells that the students engaged in classroom physical activity for their own sake, that is, for the pleasure, fun and satisfaction derived from it, as well as the optimal challenge being experienced. Interjected regulation has a low mean value of 3.432, which

speaks of the students' engagement in classroom physical activity due to avoidance of guilt and shame or to gain ego enhancements and feelings of worth. External regulation has the lowest mean score of 3.068, which means that students' engagement in classroom physical activity is due to external means such as rewards and constraints. The results support to the consistency of the SDT framework whereby intrinsic motivation and identified regulation to be normally high or positive and interjected regulation and external motivation to be normally low or negative which are predicted to the level of perceived autonomy support (Vallerand et al.,1992 & Pelletier et al., 1995).

Table 3: Physical Activity Intentions of Students (N=476)

Physical Activity Intentions	Mean	Std. Deviation	Lowest Value	Highest Value
PAI Students' Intention	5.13	1.632	0	7
PAI Students' Plan	5.25	1.576	0	7

Table 3 presents the means and standard deviations of physical activity intentions among selected grades 9 and 10 PE students in private and public schools. The students' intention to be physically active in their leisure time (outside of school) was determined by adopting three items drawn from Hagger et al. (2003) and was based on the work of Ajzen and Madden (1986) then worded in a manner to correspond to behavioral criterion in time, context, target, and action (Ajzen & Fishbein, 1980), participants responded to three questions. The students' intention to be physically active in their leisure time (outside of school) over a period of 2 weeks, for at least 30 minutes, and 3 days per week, is high with a mean score of 5.13 and a standard deviation of 1.632. On the other hand, the students' plan to be physically active in their leisure time (outside of school) over a period of 2 weeks, for a least 30 minutes, and 3 days per week with a mean of 5.25 and standard deviation of 1.576. Most of the students intend to be physically active in their leisure time (outside of school). The important step in facilitating students' active lifestyle outside school may begin in schools as it provides a structured learning that guarantees promotion of physical activity to many young people and potentially facilitate public health (Sallis et al., 1992).

Table 4: Distribution of Respondents' Intended Number of Days to Exercise Outside School

No. of Days	Respondents	%	Cumulative %
0	37	7.8	7.8
1	21	4.4	12.2
2	134	28.2	40.3
3	163	34.2	74.6
4	63	13.2	88.0
5	39	8.2	96.0
6	10	2.1	98.1
7	9	1.9	100.0
Total	476	100	

Table 4 presents the intended number of days to exercise outside of school (during leisure time) by adopting the third item drawn from Hagger et al. (2003), and was based on the work of Ajzen and Madden (1986) then worded in a manner to correspond to behavioral criterion in time, context, target, and action (Ajzen & Fishbein, 1980). For example, "During my leisure time over the next 2 weeks, I intend to do active sports and/or vigorous physical activities for at least 30 minutes, a day per week". Furthermore, result shows that 3 days is the most preferred frequency of the students' intention to be physically active in their leisure time (outside of school) over a period of 2 weeks, for at least 30 minutes, which provides ample time for rest and recovery.

5. Recommendations

Further, it is recommended for the physical educators to begin improving their facilitating-learning skills in P.E. class as well as providing adequate learning resources class, to increase the interest and participation levels of the students toward physical activity. In the same vein, fortify the engagement of students to physical activity in school through physical education subject to ensure higher transcendence at home and in the community.

6. Conclusion

Participation in physical activity is significant in building good health and wellness. Thus, the study concluded that students and/or individuals would engage in physical activity if they perceived supported and motivated.

Conflict of Interest

The authors declare that there are no conflicts of interest.

About the Authors

Marino A. Garcia is an instructor and the Research Chair of College of Arts in Cebu Normal University College of Arts and Sciences, Cebu City, Philippines. He is a graduate of Bachelor in Secondary Education major in Physical Education, Health and Music. He is also a graduate of Master of Art in Teaching Human Kinetics in Southwestern University. Further, he is a candidate for Doctor of Philosophy in Education major in Research and Evaluation. His areas of research interest are on physical activity, exercise science, human movement, and physical education.

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